

tightened too hard. In such a case, if a pin is inserted, it is obvious that the screw-head is not intended for a wrench, but that the pin is intended for getting a good grip by the hand for tightening the screw, without resorting to any additional means. Usually it is not possible to use an ordinary machine wrench on such a screw. Wing-nuts are generally most satisfactory for jigs where only a light binding pressure is required.

Wing-nuts are used on hook-bolts or swiveling eye-bolts, when a comparatively light pressure is required. The thumb-

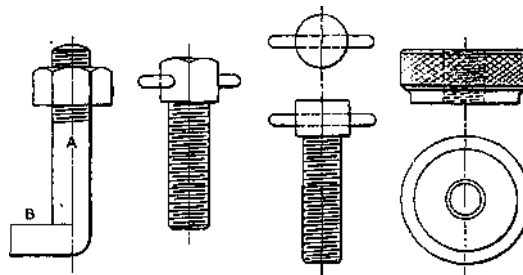


Fig. 21.

Fig. 22.

Fig. 23.

Fig. 24.

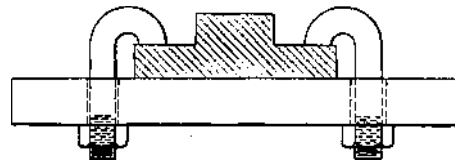


Fig. 25. Hook-bolt Method
of Clamping

or wing-nut is preferable to a knurled nut, as it gives a better grip and makes it possible to tighten the bolt more firmly. The dimensions of an excellent design of handwheel for use on jigs, etc., are given in an accompanying table. These wheels have a rather long stem or hub which provides

a good length of thread and brings the grip or handle far enough from the jig body to prevent the fingers or knuckles from striking it. The "star" design of handle also permits a good grip. By having the casting solid, these handwheels can be tapped out for any size thread, or a